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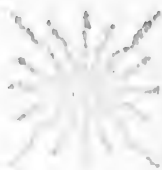
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ASSOCIATION

GYMNASIUM RECORDS





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# MANUAL

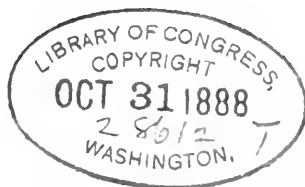
FOR

THOSE DESIRING TO USE

## THE ASSOCIATION GYMNASIUM RECORDS.

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By LUTHER GULICK.



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40 EAST TWENTY-THIRD STREET, NEW YORK CITY.

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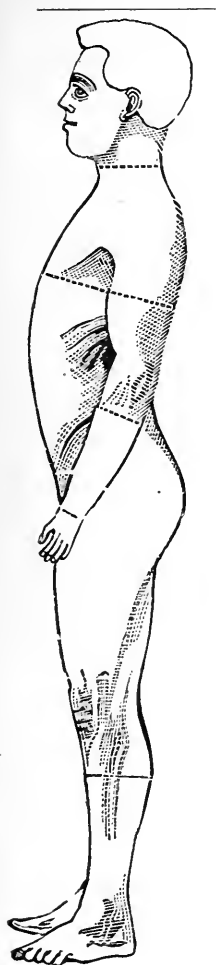


PLATE 1.

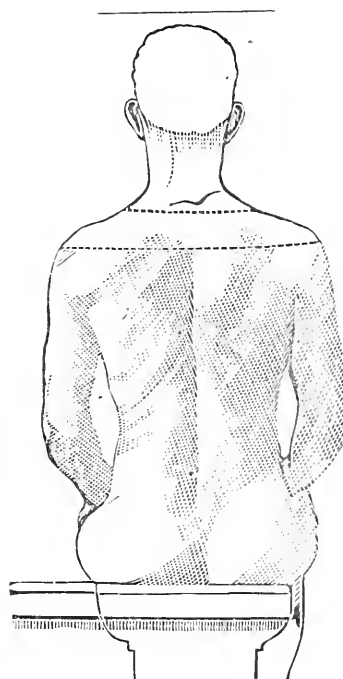


PLATE 2.







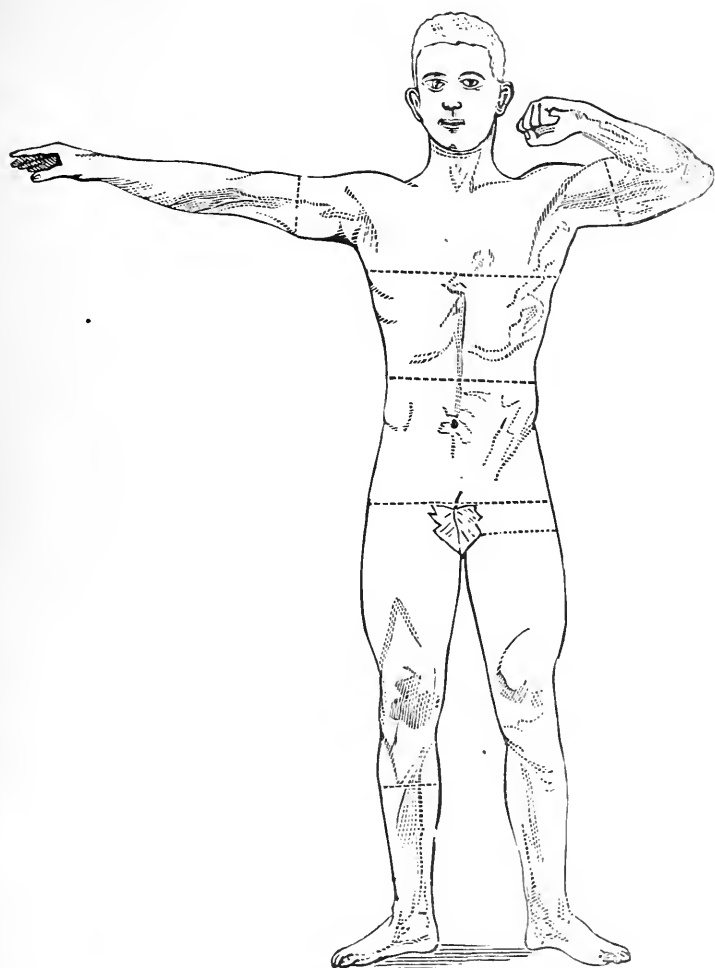
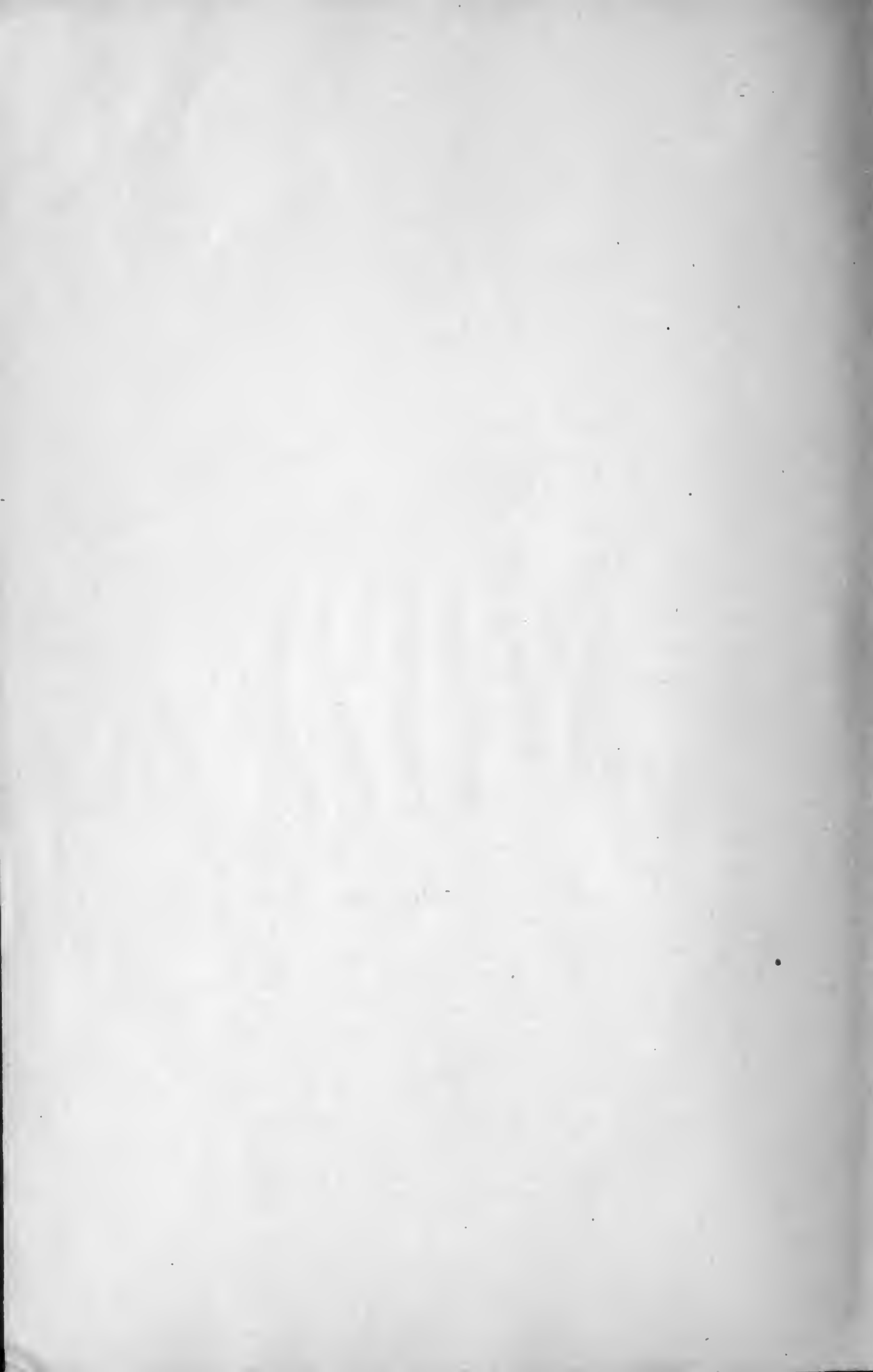


PLATE 3.



## INTRODUCTION.

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In order that the Anthropometric statistics taken in the Young Men's Christian Association Gymnasiums might be of greater value than formerly, it was thought wise that some definite and uniform system be recommended for adoption.

Accordingly, during the winter of 1887 and 1888, the following outline was prepared and presented for criticism to Prof. Edward Hitchcock, M. D., of Amherst College; Prof. J. W. Seaver, M. D., of Yale; Wm. Blaikie, Esq; Prof. D. A. Sargent, M. D., of Harvard; Prof. W. W. Ranney, of Williams College; J. Gardner Smith, M. D., of the Young Men's Institute of New York City; Mr. W. S. Sheldon, of the Cleveland Y. M. C. A., and others.

These gentlemen discussed every item in detail, suggesting alterations and additions which would render it more valuable. After this preparatory criticism, a meeting was held in May, 1888, for a final revision. There were present at this meeting Prof. Edward Hitchcock, M. D.; Wm. Blaikie, Esq; Prof. J. W. Seaver, M. D.; Prof. W. W. Ranney; Dr. J. Gardner Smith, Dr. T. M. Bull, of New York City; R. R. McBurney, General Secretary of Y. M. C. A., of New York City; R. C. Morse, General Secretary of the International Committee; Rev. D. A. Reed, O. C. Morse, J. T. Bowne, R. J. Roberts, and Luther Gulick, of the Association Training School.

At this meeting, the blank was finally revised and recommended for adoption to the Associations.

On Thursday, June 7th, the blank, as finally prepared, was presented to the International Conference of General Secretaries, then in session at Grand Rapids, Mich. After an animated discussion, it was unanimously recommended for adoption.

## HISTORY, MEASUREMENT AND EXAMINATION.

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In order that these statistics may be of scientific value, it is necessary that they be taken on a uniform basis and by a uniform method.

It will be noticed that the page is divided into two parts; the upper part being called History, and the lower, Examination.

The History is to be filled out once for all at a man's first examination, and refers entirely to the past.

One column of the examination should be filled out every six months, preferably every three months.

It will be noticed that a part of the headings are in very much larger type than the rest. This is so arranged in order that those who do not care, or are unable, to take the whole list of measurements, may have before them, in the larger type, the data which are regarded as the most essential. In this way, even if it is possible to take but a few measurements, those few will be valuable, being taken on the same basis, and thus comparable with those of the other Associations.

It is heartily recommended, however, that the whole list be taken.

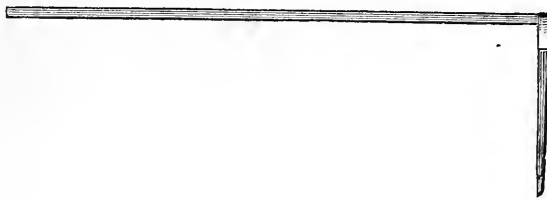
### APPARATUS NECESSARY FOR SECURING THESE DATA.

In order that the statistics may be of interest to members of the Gymnasium, it has been thought best that they should be taken on the English system of measurements, using pounds and tenths, and inches and tenths, the results of the work being published in the Metric as well as in the English system.

There should be a pair of scales recording at least pounds and half-pounds, preferably pounds and tenths; a box or stool, twelve or fourteen inches high; and a tape, graduated to inches

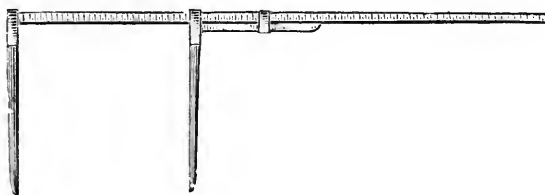
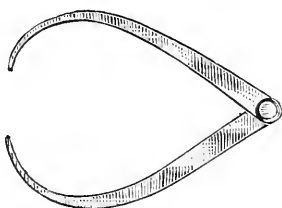
and tenths, fastened against the wall in such a manner that the zero of the scale shall be on a level with the seat of the stool.

A square, eight inches by twelve, with a broad flat lower



edge, is also necessary in taking the height. The measuring tape should be graduated to inches and tenths.

To take the dip, it will be necessary either to have a pair of parallel bars or a pair of wall parallels. For the pull-up, a pair of suspended rings or a horizontal bar placed so high that the feet of a person suspended from it will clear the floor. A small grip dynamometer and spirometer will be necessary. Two pairs of calipers should be used—one of steel, with circular arms; and the other of wood, with straight arms. The



measuring tapes should be graduated to inches and tenths, and should have a spring at the zero end, that will give a uniform tension equal to a pull of six ounces.

## HISTORY.

**NUMBER.** This refers to the total number of examinations that have been made in the gymnasium since this system was adopted. In the first book, if the book system is used, the number will correspond to the number of pages, but when the first has been filled, the numbering will keep right on in the second book, while the paging will commence over again. Thus, the last man in the first book will be on page 250, and he will be number 250; but the first man in the second book will be number 251, while he will be on page 1.

**BIRTHPLACE** refers to the city or town and state; or, for foreigners, to the nation.

**EXERCISE (PAST) WORK** refers, under the two headings, Physical and Mental, to the kind and quantity of work upon which the individual in question has depended for his livelihood during and since boyhood, and should answer the question, "What various kinds of mental or bodily occupation have you been engaged in since boyhood?"

**EXERCISE (PAST) RECREATION** should answer the questions, "In what forms have you been accustomed to take your recreation? Have you ever engaged in any kind of athletic, gymnastic, or acrobatic work?"

**HEALTH.** This refers to the examiner's opinion of the man, and not to the man's opinion of himself. Of course, the examiner must take into consideration, and will need to be governed largely by, what is said. In general, it will not be very difficult to find out whether or not the subject has been suffering from any constitutional disease, whether he was constitutionally robust or delicate. Ask: What serious sicknesses has he ever had? Was the recovery complete? Whether he has had any of the following diseases, and if he has, make a note to that effect: Palpitation of the heart, dyspepsia, headache, inflammation of the bowels, pleurisy, habitual constipation, varicose veins, bronchitis, shortness of breath, spitting

of blood, consumption. Endeavor to find out, if there have been any of these diseases, as to the severity of the difficulty, and also whether or not the recovery has been complete.

**DISEASES IN FAMILY.** Endeavor to find out if there are any traces of these diseases in the family as a family.

If there have been any surgical operations, accidents, or other injuries, make a note of the same under **SPECIAL HISTORY**, giving the cause and extent of the injury.

### EXAMINATION.

Descriptions of the measurements have been quoted, wherever possible, from the Manual of the American Association for the Advancement of Physical Education, in order that the results secured by us might be of value also to them. The examination should not be made within an hour after vigorous exercise.

**DATE.** Record the year, month, day and hour; as, Jan. 12, 1886, 9 A. M.

**OCCUPATION.** Here record that on which he depends for his living.

**EXERCISE; WORK** refers to the quantity and quality of physical exercise which the subject is taking at the present time. The same being true of **EXERCISE; RECREATION**.

**WEIGHT.** "The weight of the body should be taken without clothes; or, if this be impossible, the weight of the clothes should be deducted."

**HEIGHT.** "The height should be taken without shoes, and with the head uncovered. The head and figure should be held easily erect, and heels together. This position is best secured by having the heels, buttocks, and spine between the shoulders, and back of the head, in contact with the measuring rod." (Plate 1.)

**HEIGHT—SITTING.** Let the subject sit on a stool, about 13 inches high, "with the head and figure easily erect, so that the



measuring-rod shall touch the vertebræ and the back of the head. Measure the distance from the box to the vertex." (Plate 2.)

**LENGTH OF TRUNK.** With the subject in the position assumed for HEIGHT SITTING, erect as possible, let the length of the spinal column to the seventh cervical vertebra be ascertained (Plate 2,) which is the most prominent vertebra at the root of the neck.

**DEPTH OF CHEST.** "Take the measurement after a natural inspiration; place one foot of the calipers on the sternum midway between the nipples, and the other foot on the spine at such a point that the line of measurement is at right angles with the axis of the spinal column." (Plate 1.)

**WIDTH OF CHEST.** "Taken after a natural inspiration; place one foot of the calipers on each side of the chest, directly across the nipples, in contact with the projecting part of the ribs." (Plate 3.)

**BREADTH OF SHOULDERS.** "With the subject standing in a natural position, elbows at the sides, shoulders neither dropped forward nor braced backward, measure the broadest part two inches below the acromium processes." (Plate 2.)

**BREADTH OF HIPS.** "Measure the widest part over the trochanters, while the subject stands with feet together, the weight resting equally on both legs." (Plate 3.)

**GIRTH OF NECK.** "With the head of subject erect, pass the tape around the neck half-way between the head and body, or just below the 'Adam's apple.'" (Plate 1.)

**GIRTH OF CHEST EXPANDED.** "Pass the tape around the chest so that it shall embrace the scapulae, and cover the nipples. The arms of the subject should be held in a horizontal position while the tape is being adjusted, and then allowed to hang naturally at the sides."

**GIRTH OF CHEST CONTRACTED.** "With the arms and shoulders held in the same position, measure the girth after contraction."



**GIRTH OF WAIST.** "The waist should be measured at the smallest part, after a natural inspiration." (Plate 3.)

**GIRTH OF HIPS.** "The subject stands erect with feet together. Pass the tape around the hips, over the pubes and over the trochanters and the gluteal muscles." (Plate 3.)

**GIRTH OF WRIST.** "With the fingers of the hand open, and the muscles of the forearm relaxed, measure above the styloid processes of the hand." (Plate 1.)

**GIRTH OF FOREARM.** "The tape should be passed around the largest part. The fingers should be clinched and the palm of the hand be turned upward."

**GIRTH OF UPPER ARM UP.** "With the arm of the subject bent hard at the elbow, contracting the biceps and held away from the body in a horizontal position, pass the tape around the greatest prominence." Let the palm be held towards the shoulder. (Plate 3.)

**GIRTH OF UPPER ARM DOWN.** "The arm should be held in a horizontal position and measured around the most prominent part." (Plate 3.)

**GIRTH OF THIGH.** "With the feet of the subject about six inches apart, the muscles set just enough to sustain the equilibrium of the body, and the weight distributed equally on each leg, measure around the thigh just below the nates." (Plate 3.)

**GIRTH OF CALF.** "With the heels down and the weight of the body distributed equally on both feet, the tape should be passed around the largest part of the calf." (Plates 1 and 3.)

**MUSCLES—CONSISTENCY.** The letters in the book stand respectively for Very Hard, Hard, Medium, Soft, and Very Soft. Cross out the letter which in the examiner's mind will best describe the individual in question, care being taken to form the judgment simply upon the consistency, letting alone the question of size or development.

**MUSCLES—DEVELOPMENT.** The letters here stand for Very Good, Good, Medium, Poor, and Very Poor. They should be used in the same way as in the last item. Great care

should be taken in considering the development of the muscle irrespective of its size.

**MUSCLES—SIZE.** The letters refer to Very Large, Large, Medium, Small, and Very Small, and should be similarly used.

**HEART.** The number of beats per minute, before and after strength tests, should be here recorded.

**DIP.** "The subject, while holding a position of rest upon a pair of parallal bars, supporting his weight with his arms straight, should let the body down until the chin is level with the bars, and then push it up again till the arms are firmly extended. Note the number of times that he can lift himself in this manner."

**PULL UP.** "The subject should grasp a parallel bar or pair of rings and hang with his feet clear from the floor, while the arms are extended. Note the number of times that he can haul his body up until his chin touches the bar or ring."

**STRENGTH OF FOREARMS.** "The subject, while holding the dynanometer so that the dial turns inward, should squeeze the spring as hard as possible."

**LUNG CAPACITY.** "After inflating the lungs to their utmost capacity, blow slowly into the spirometer. Three trials may be allowed ; record the greatest one."

**HOURS IN OPEN AIR.** Whether in business or recreation, all should be noted.

**SLEEP.** This refers to the time spent in sleep, and not simply in resting. For instance, 10 P. M. to 6 A. M.

**TOBACCO.** If the subject uses tobacco at all, record it with the quantity used. Let capital S stand for segar, small c for cigarette, and W for chew, so that an individual record reading 7 S, would mean that he smoked, on an average, 7 segars a day.

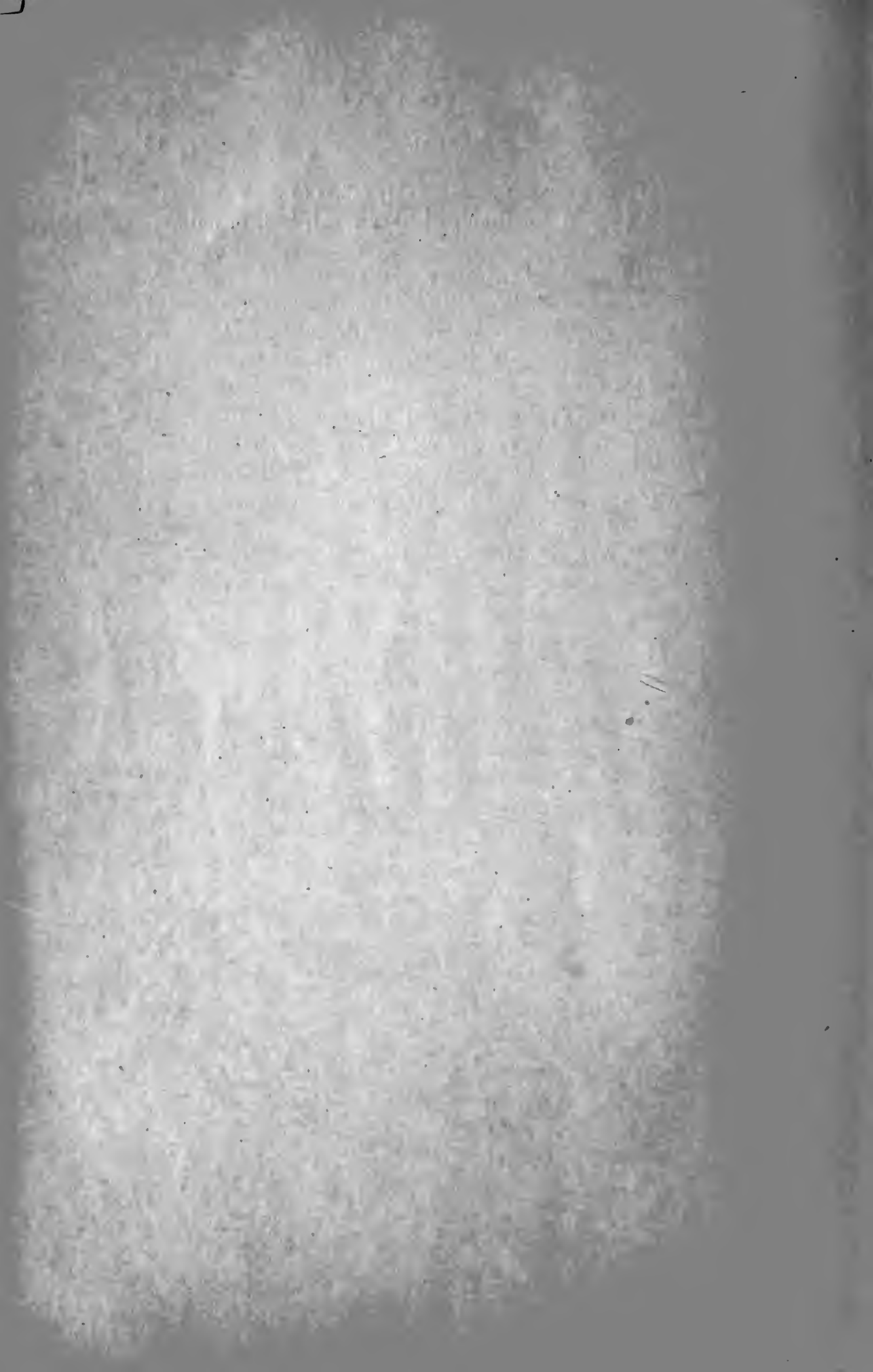
**STIMULANTS.** The kind and quantity of stimulants used by the subject, and also whether they are taken solely in connection with the meals or not. If they are taken solely at the meal-time, draw a small circle in the left-hand corner of the space.

**HEALTH—IN GENERAL.** Here this refers to the examiner's idea of his present condition, whether good, bad, or indifferent.

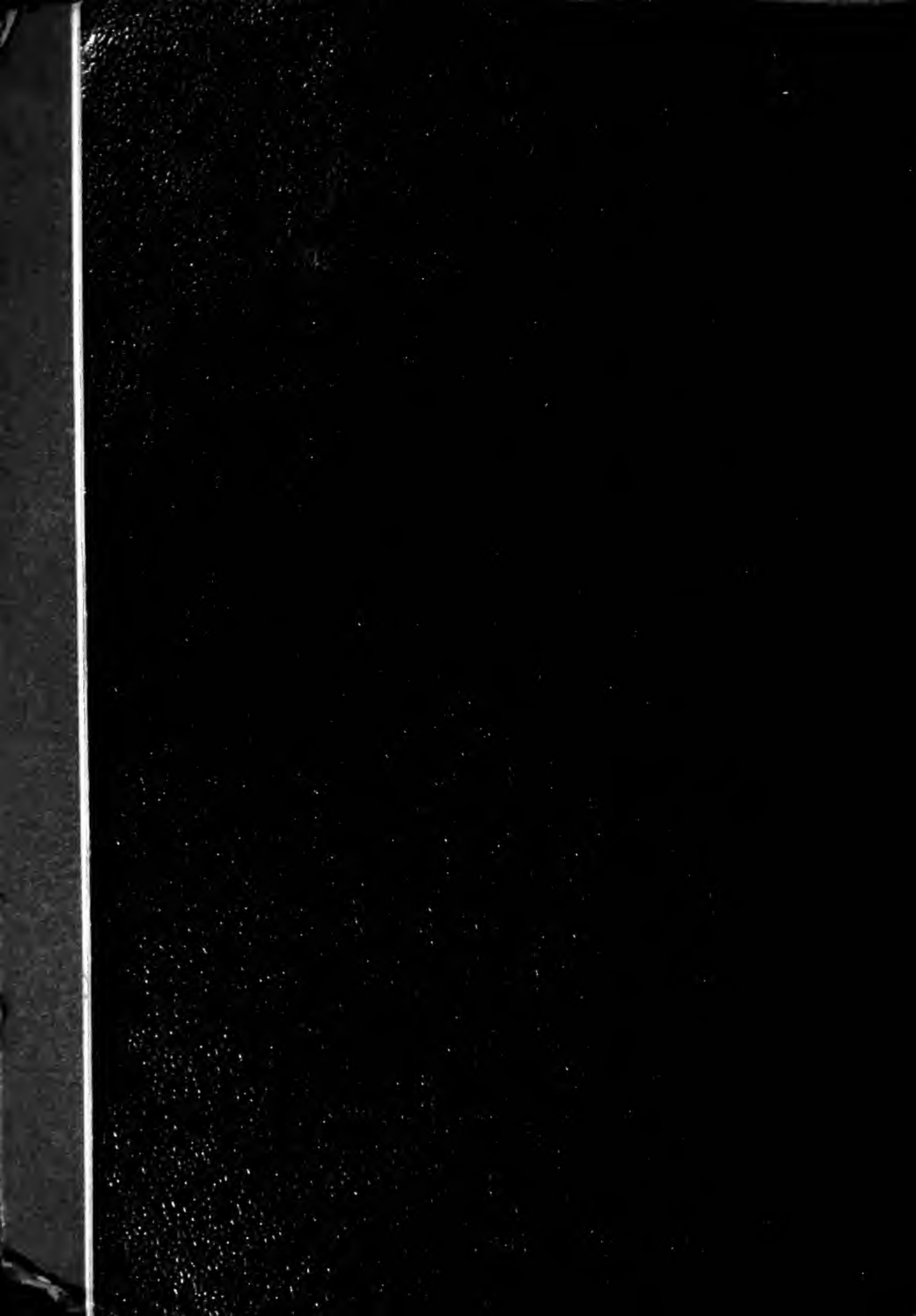
After this examination is over, and the examiner has made up his mind as to the quantity and quality of exercise that should be taken, and as to any other advice which in his judgment would be of advantage to the subject, let him record it under the head of Prescriptions.

Use the following abbreviations : D, for dumb-bells ; I, Indian clubs ; W, wands ; P, parallel bars ; O, overhead bars, etc., so that an individual prescription might read as follows : D, 4 pounds, curl and put up. Five minutes elementary class-work in I, W.

Under remarks should be placed any peculiar point about the subject under discussion.



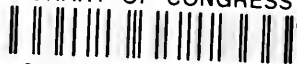








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